

**UNITED STATES DEPARTMENT OF COMMERCE****Patent and Trademark Office**Address: COMMISSIONER OF PATENTS AND TRADEMARKS
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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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08/743, 002 11/01/96 DAMSOHN

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QM02/0830
EVENSON MCKEOWN EDWARDS & LENAHAN
1200 G STREET NW SUITE 700
WASHINGTON DC 20005

EXAMINER

LEO, L

| ART UNIT | PAPER NUMBER |
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3743

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DATE MAILED:

08/30/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

| | | |
|------------------------------|--------------------------------------|---------------------------------------|
| Office Action Summary | Application No. 08/743,002 | Applicant(s) Damsohn et al. |
| | Examiner Leonard R. Leo | Group Art Unit 3743 |

Responsive to communication(s) filed on Jun 8, 2000

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

Claim(s) 1-20 and 22-38 is/are pending in the application.

Of the above, claim(s) 1-20, 23-30, 32, 36, and 37 is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 22, 31, 33-35, and 38 is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) _____.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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Election/Restriction

Applicant's election of the invention of Group II and the species of Figure 3a in Paper No. 20 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 1-20, 23-30, 32 and 36-37, and claims are withdrawn from further consideration by the examiner, 37 CFR 1.142(b) as being drawn to a non-elected invention and species, respectively. Claim 32 is not readable on the elected species, since the disclosed lugs of Figure 3a are "welded."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22, 31 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karbach et al in view of Melnyk et al.

Karbach et al discloses all the claimed limitations except latticed tube bottoms.

Melnyk et al discloses a heat exchanger comprising a shell 12 joined to latticed tube bottoms 24 receiving a plurality of tubes 18 for the purpose of providing a fluid tight manifold.

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Since Karbach et al and Melnyk et al are both from the same field of endeavor and/or analogous art, the purpose disclosed by Melnyk et al would have been recognized in the pertinent art of Karbach et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Karbach et al latticed tube bottoms receiving a plurality of tubes for the purpose of providing a fluid tight manifold as recognized by Melnyk et al. Although Melnyk et al discloses the tube bottoms are brazed, one of ordinary skill in the art would employ welding to achieve stronger joints.

Regarding claim 31, Karbach et al discloses the elements are welded (column 5, lines 29-30).

Regarding claim 38, the tube bottoms 24 of Melnyk et al are preformed, since the tubes 18 are inserted therein.

Claims 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karbach et al in view of Melnyk et al as applied to claims 22, 31 and 38 above, and further in view of Kim.

The combined teachings of Karbach et al and Melnyk et al lacks tubes having spacing elements.

Kim discloses a heat exchanger comprising a shell joined to lattice bottoms 2 receiving a plurality of tubes 1; wherein the tubes have spacing elements 3 for the purpose of providing support.

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Since Karbach et al and Kim are both from the same field of endeavor and/or analogous art, the purpose disclosed by Kim would have been recognized in the pertinent art of Karbach et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Karbach et al tubes having spacing elements for the purpose of providing support as recognized by Kim.

Regarding claim 34, it has been held that the term "integral" is sufficiently broad to embrace constructions united by such means as fastening and welding. *In re Hotte*, 177 USPQ 326, 328 (CCPA 1973).

No further comments are deemed necessary at this time.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 3700 receptionist whose telephone number is (703) 308-0861.

Any inquiry concerning this communication should be directed to Leonard R. Leo whose telephone number is (703) 308-2611.


LEONARD R. LEO
PRIMARY EXAMINER
ART UNIT 3743

August 28, 2000